$(\prod G) \circ f = \prod \{\uparrow^{\mathsf{RLD}}(g \circ \varphi) \mid g \in \mathrm{xyGR} \prod G\}$;

$\mathrm{GR} \prod \{g \circ f \mid g \in G\} = \mathrm{GR} \prod \{\prod \{\uparrow^{\mathsf{RLD}}(\Gamma \circ \varphi) \mid \Gamma \in \mathrm{xyGR}\, g\} \mid g \in G\} = \mathrm{GR} \prod \bigcup \{\{\uparrow^{\mathsf{RLD}}(\Gamma \circ \varphi) \mid \Gamma \in \mathrm{xyGR}\, g\} \mid g \in G\} = \mathrm{GR} \prod \{\uparrow^{\mathsf{RLD}}(\Gamma \circ \varphi) \mid \Gamma \in \mathrm{xyGR} \prod G\} = \{(\Gamma_0 \circ \varphi) \sqcap \ldots \sqcap (\Gamma_n \circ \varphi) \mid \Gamma_i \in \bigcup G$ where $i = 0, \ldots, n$ for $n \in \mathbb{N}\}$ = (proposition above)$=\{(\Gamma_0 \sqcap \ldots \sqcap \Gamma_n) \circ \varphi \mid \Gamma_i \in \bigcup G$ where $i = 0, \ldots, n$ for $n \in \mathbb{N}\} = \{\Gamma \circ \varphi \mid \Gamma \in \mathrm{xyGR} \prod G\}$.

Thus $(\prod G) \circ f = \prod \{g \circ f \mid g \in G\}$. □

Theorem 13.85.

1. Monovalued reloids are metamonovalued.
2. Injective reloids are metainjective.

Proof. We will prove only the first, as the second is dual.

Let G be a set of reloids and f be a monovalued reloid.

Let f' be a principal monovalued continuation of f (so that $f = f'|_{\mathrm{dom}\, f}$).

By the lemma $(\prod G) \circ f' = \prod \{g \circ f' \mid g \in G\}$. Restricting this equality to dom f we get: $(\prod G) \circ f = \prod \{g \circ f \mid g \in G\}$. □

Conjecture 13.86. Every metamonovalued reloid is monovalued.